DIN EN ISO 7488:2018-08 (E)

Dentistry - Mixing machines for dental amalgam (ISO 7488:2018)

Contents

Page

European foreword ... **4**

Foreword ... **5**

Introduction ... **6**

1 Scope ... **7**

2 Normative references ... **7**

3 Terms and definitions ... **7**

4 Requirements ... **8**

4.1 Safety ... 8

4.1.1 Electrical ... 8

4.1.2 Mechanical ... 8

4.2 Stability ... 8

4.3 Sound pressure ... 9

4.4 Frequency ... 9

4.4.1 General ... 9

4.4.2 Variable-power machines ... 9

4.5 Amplitude ... 9

4.6 Mixing time ... 9

4.6.1 Timing device ... 9

4.6.2 Timing settings ... 9

4.7 Coherence time ... 10

4.8 Long-term test ... 10

5 Sampling ... **10**

5.1 Mixing machine ... 10

5.2 Mixing-capsules ... 10

5.2.1 General ... 10

5.2.2 Mixing-capsule selection ... 10

5.3 Test components ... 11

6 Measurement and test methods ... **11**

6.1 Test conditions ... 11

6.1.1 General ... 11

6.1.2 Reference charge mass, m_{ref} ... 11

6.1.3 Minimum charge mass, m_{min} ... 11

6.1.4 Maximum charge mass, m_{max} ... 11

6.1.5 Maximum running duration, t_{max} ... 11

6.1.6 Power supply conditions and apparatus ... 11

6.1.7 Equipment setup ... 12

6.2 Visual inspection ... 12

6.3 Sound pressure ... 12

6.3.1 Apparatus and setup ... 12

6.3.2 Procedure ... 13

6.3.3 Variable-power machines ... 13

6.4 Frequency tests 13
6.4.1 Measurement of mixing-capsule oscillation frequency 13
6.5 Working length 14
6.5.1 Principle 14
6.5.2 Apparatus 14
6.5.3 Procedure 14
6.6 Amplitude 14
6.6.1 Apparatus 14
6.6.2 Procedure 14
6.7 Mixing time 15
6.7.1 Apparatus 15
6.7.2 Procedure 15
6.8 Coherence time 15
6.8.1 Apparatus and materials 15
6.8.2 Procedure 15
6.9 Long-term test 16
7 Instructions for use 17
7.1 General 17
7.2 Identification 17
7.3 Safety 17
7.4 User maintenance 17
7.5 Other maintenance 17
7.6 Mixing-capsule requirements 17
7.7 Mixing-capsule amplitude 17
7.8 Operational limitations 18
7.8.1 Mixing machine limitations 18
7.8.2 Mass and frequency 18
8 Packaging 18
9 Marking 18
9.1 On the mixing-machine 18
9.2 On the packaging 18
Bibliography 19